Marquette Law Review

Volume 93
Issue 2 *Symposium: Criminal Appeals: Past, Present, and Future*

Article 17

Federal Criminal Appeals: A Brief Empirical Perspective

Michael Heise

FEDERAL CRIMINAL APPEALS: A BRIEF EMPIRICAL PERSPECTIVE

MICHAEL HEISE*

I. INTRODUCTION

Although few dispute the appellate process's centrality to justice systems,[1] especially in the criminal context,[2] debates over rationales supporting the appellate process's vaunted status in adjudication systems persist. Clearly, it is difficult to overestimate error correction as a justification for an appellate system. Of course, other rationales, such as a desire for lawmaking[3] and legitimacy,[4] also support the inclusion of a mechanism for appellate review in an adjudication system.

Though comparative latecomers, appellate courts are now ubiquitous in the American legal landscape—appellate review exists in state[5] and federal[6] systems for criminal convictions. Despite general agreement and widespread understanding that access to appellate review is a critical component of a comprehensive judicial system, the outcomes of appellate courts and, equally important, how to interpret the outcomes, are comparatively less well understood and developed in the research literature. In particular, the distribution of appeals outcomes as well as explanations for the distribution warrant additional scholarly attention.

To address this scholarly gap, this Article assesses federal criminal appeals from an empirical perspective. Modest in ambition and scope, this Article seeks only to map the broad empirical contours of federal criminal appellate activity in the United States. The initial research question focuses

---

* Professor, Cornell Law School. Mark Chutkow, Matthew C. Heise, and Mian R. Wang, along with participants in the Marquette University Law School Criminal Appeals: Past, Present, and Future Conference, provided helpful comments on a prior version of this Article. Cornell Law School reference librarians provided invaluable research assistance.

1. *See* Steven Shavell, *The Appeals Process as a Means of Error Correction*, 24 J. LEGAL STUD. 379, 379 (1995).

2. *See generally* Harold W. Elder, *Trials and Settlements in the Criminal Courts: An Empirical Analysis of Dispositions and Sentencing*, 18 J. LEGAL STUD. 191 (1989) (analyzing settlements only within the criminal context).

3. Shavell, *supra* note 1, at 381.

4. *See* Martin Shapiro, *Appeal*, 14 L. & SOC'Y REV. 629, 636 (1980).

5. *See* Betsy Dee Sanders Parker, Comment, *The Antiterrorism and Effective Death Penalty Act ("AEDPA"): Understanding the Failures of State Opt-In Mechanisms*, 92 IOWA L. REV. 1969, 1975–76 (2007) (noting how states provide for criminal appeals).

6. *See, e.g.*, 28 U.S.C. § 1291 (2006) (general appeal of right), § 2106 (appeal of sentence).

on the basic results of appellate reviews of federal criminal cases. Existing data germane to this question, while far short of thorough and definitive, provide some helpful guidelines and trends. The second research question—what one can responsibly infer from the results—is far more complicated and illusive and, therefore, limited. Important limitations to existing data, as well as the influence of selection effects, contribute to the second research question's complexity and illusiveness. While existing data sketch out the general contours of what our federal appellate courts are doing in the criminal setting, how to interpret these data remains unclear.

II. DATA

The U.S. Sentencing Commission annually gathers and reports criminal appeals data. Available cross-sectional data used in this study include information on 10,052 appeals resolved in fiscal year 2006.[7] Of these 10,052 appeals, disposition information was gathered for those defendants appealing their sentence or sentence and conviction. The 1,625 appeals seeking only to overturn a conviction on appeal were excluded from the Sentencing Commission's data. Of the 8,427 remaining appeals, 144 were excluded due to missing information on the type of appeal. Of the 8,283 usable appeals, 138 involved an appeal by the government and were excluded from many (but not all) of the analyses. These exclusions generated a final usable sample of 8,145 federal criminal appeals.[8]

As helpful as the data might be, important limitations reduce their generalizability. Questions about how to interpret results endure. For example, at a basic level it is not entirely clear what data on federal criminal trial appeal outcomes mean or stand for. As Professor Shavell notes, the selection effects and case stream filtering that take place before the criminal appeals process even begins supply critical context necessary to inform criminal appellate outcomes.[9] Criminal appellate outcomes are a function of those criminal cases that pursue an appeal to its outcome. Factors that influence the stream of criminal cases that pursue an appeal to its outcome include prosecutors exercising discretion over which criminal cases to pursue, pretrial plea bargaining, and posttrial (and pre-appeal) settlement activity.

Although such nuanced influences as the exercise of prosecutorial discretion are notoriously difficult to assess with empirical rigor, theory (and conventional wisdom) provides helpful direction. Selection effects and case stream filtering work in a manner that most often reduces the number of

7. Fiscal Year 2006 runs from October 1, 2005 through September 30, 2006, inclusive.

8. U.S. SENT'G COMM'N, 2006 SOURCEBOOK OF FEDERAL SENTENCING STATISTICS 141–43 tbl.56 n.1 (2006) [hereinafter U.S.S.C., 2006 SOURCEBOOK], *available at* http://www.ussc.gov/ANNRPT/2006table56.pdf.

9. *See* Shavell, *supra* note 1, at 414–15.

criminal appeals likely to be reversed.[10] Moreover, the criminal justice system's structural tilt favoring the accused—the "beyond a reasonable doubt" standard of proof imposed for conviction and the general prohibition on governmental appeal of acquittals—individually and collectively skew the sub-pool of criminal convictions that stimulate an appeal. As a result, the residual pool of criminal appeals likely systematically differs from the larger universe of criminal trial outcomes. If so, the influence of these factors complicates efforts to interpret criminal appellate results, including raw criminal appellate reversal rates.

III. DISCUSSION

Important limitations notwithstanding, the data provide for a rough outline of the federal criminal appeals terrain. The descriptive findings focus on the type of appeal, disposition, variation across circuits, as well as the influence of a relatively recent key U.S. Supreme Court decision, *United States v. Booker*.[11] Moreover, prior work on civil appellate outcomes provides a useful (albeit imperfect) reference point against which one can assess criminal appellate outcomes. Before turning to the results of the analyses, however, this Article briefly considers why appeals in general, and criminal appeals in particular, warrant more scholarly attention.

A. Why Worry About Appeals?

Despite their comparative scarcity, appealed cases—far more than cases that settle or go to trial—form the basis of much of what many observers know about the legal system. For much of the public, aside from those with first-hand experience with and knowledge of the legal system, perceptions about the law flow from some level of familiarity with appellate decisions, especially Supreme Court decisions. Far too few citizens fully grasp that institutions *other* than appellate courts handle the overwhelming majority of the legal "work."

What is generally true for much of the public is also true—though to a lesser extent—for informed observers and for many legal scholars. Appellate decisions dominate law school casebooks and contribute to legal doctrine and to precedent that binds trial courts. Much of the work of scholars who focus on how our legal system actually works relies on published court decisions. In addition, appellate court decisions are far more accessible in the major searchable legal databases (such as Westlaw and Lexis). This further tilts legal research toward appellate courts and appellate decisions and away from the far larger mass of unappealled trial court decisions.

---

10. *Id.*

11. 543 U.S. 220 (2005).

What is true at the general level—appealed cases' disproportionate influence—is perhaps even truer in the federal criminal context. Structural differences and the generally higher stakes render criminal law, especially federal criminal law, more influential in the eyes of many. Criminal law violations are, by definition, construed as violations against the state. Although civil matters can (and periodically do) involve the spectacular, as between civil and criminal the latter tends to dominate the public psyche. The media and popular culture's periodic preoccupation with law typically preferences criminal over civil matters. Indeed, the media routinely describes and displays crimes. Criminal—far more than civil—law litters the popular culture landscape, "from television, to movies, to books."[12]

In addition, the scope and stakes of American criminal law continue to stagger. As the economy and population have grown over two centuries, the United States has achieved the largest prison population in human history, with the highest imprisonment rate in the industrialized world.[13] "In the process, the empire of criminal justice in the United States has become as broad in its reach as it has been exceedingly harsh in its effects."[14] In many instances, including capital crimes, the stakes involved in criminal law could not be any higher. Finally, although criminal law remains principally the province of the states, federal criminal law has increased both in relative and absolute terms over time.[15]

Within the appellate context, the sheer increase of federal criminal appeals over time contributes to criminal law's influence in the appeals process. As Professor Galanter notes, the federal criminal caseload (measured in terms of raw number of defendants) increased between 1962 and 2002, if modestly (compared to the civil caseload) and unevenly.[16] In 1955, fewer than 5,000 appeals were filed in federal courts of appeals. Fifty years later, in 2004, the number of filings exceeded 61,000.[17] Thus, at the same time the raw number

12. Steven Friedland, *Teaching Property Law: Some Lessons Learned*, 46 ST. LOUIS U. L.J. 581, 590 (2002); *see id*. at 590 n.38 (remarking that criminal law penetrates popular culture far deeper than property law).

13. *See, e.g.*, James Vicini, Number of U.S. Prisoners Has Biggest Rise in 6 Years, Reuters (June 27, 2007), www.reuters.com/articlePrint?articleId=USN2637053120070627 (noting that the prison population in the United States is approximately 2.2 million, in China it is 1.5 million, and in Russia it is 900,000).

14. Mariano-Florentino Cuéllar, *The Political Economies of Criminal Justice*, 75 U. CHI. L. REV. 941, 942 (2008).

15. *See, e.g.*, Michael E. Horowitz & April Oliver, *Foreword: The State of Federal Prosecution*, 43 AM. CRIM. L. REV. 1033, 1039–40 (2006) ("[F]ederal courts have been overrun with criminal cases.").

16. Marc Galanter, *The Vanishing Trial: An Examination of Trials and Related Matters in Federal and State Courts*, 1 J. EMPIRICAL LEGAL STUD. 459, 492, 493 fig.23 (2004).

17. *See* Richard A. Posner, *Demand and Supply Trends in Federal and State Courts Over the Last Half Century*, 8 J. APP. PRAC. & PROCESS 133, 137 tbl.3 (2006).

of federal appeals increased, the proportion of criminal cases that blossomed into appeals also grew. This interaction helps place federal criminal appeals on the center stage of legal research.

B. Types of Federal Criminal Appeals and Their Disposition

The U.S. Sentencing Commission gathers data on federal appeals of criminal sentences, as well as appeals of sentences and convictions. Table 1 illustrates that as between these two broad types of criminal appeals, more than twice as many appeals involve only a criminal sentence rather than a sentence and conviction (71.4% vs. 28.6%).

Table 1 also makes clear that most criminal appeals, regardless of type, are affirmed. This finding comports with what conventional wisdom would predict. Because pursuing a criminal appeal is essentially free—or, more accurately, because criminal appellants are not forced to internalize the full costs of their appeal—there is little incentive *not* to appeal. Consequently, many commentators characterize a large percentage of criminal appeals as meritless, if not frivolous.[18] As a consequence, a high affirmance rate is expected.

Table 1: 2006 Federal Criminal Appeals Disposition by Type (%)[19]

	All Appeals	Sentence Only	Sentence & Conviction
Affirmed	68.5	71.6	60.8
Reversed	11.7	10.2	15.2
Affirmed and Reversed in Part	2.8	2.2	4.0
Remanded	9.3	8.2	12.1
Dismissed	7.8	7.8	7.7
Total Appeals	8,145	5,817	2,328

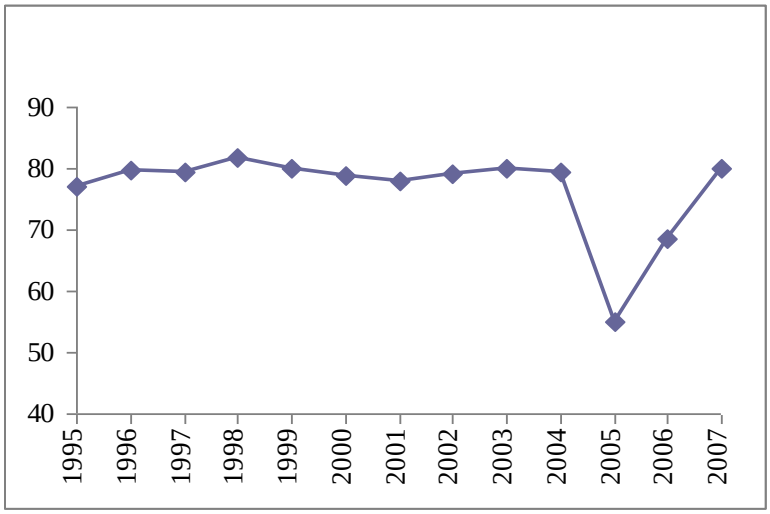
A distinct, though related, question involves assessing whether the federal criminal appeals affirmance rate is low or high. Such an assessment, however, requires context that is, unfortunately, not readily available. Drawing on various disparate sources suggests that the affirmance rate found for federal criminal appeals in 2006 (68.5%) is roughly comparable to

18. *See generally* PAUL D. CARRINGTON ET AL., JUSTICE ON APPEAL (1976); John T. Wold, *Going Through the Motions: The Monotony of Appellate Court Decisionmaking*, 62 JUDICATURE 58, 61 (1978) (describing the "right of indigents to a 'free' appeal" as "result[ing] in a caseload . . . of 'routine,' nonmeritorious appeals").

19. U.S.S.C., 2006 SOURCEBOOK, *supra* note 8, at 141–43 tbl.56. *See also* United States Sentencing Commission, Monitoring of Federal Criminal Convictions and Sentences: Appeals Data, 2006 (ICPSR 20101) [hereinafter U.S.S.C. 2006], http://www.icpsr.umich.edu/cocoon/NACJD/STUDY/20101.xml, which was the source of data used in this table and in Tables 4–6, *infra*.

affirmance rates from state criminal appeals as well as prior federal appeals. In a study of five state criminal appeals courts in the late 1980s, Chapper and Hanson found affirmance rates that ranged from 70.8% (Rhode Island) to 81.7% (Maryland).[20] In addition, Table 2 illustrates that the affirmance rate in 2006 is comparable to past years (with the notable exception of 2005).

Table 2: Percentage of Federal Criminal Appeals Affirmed, by Year[21]



Civil appeals rates supply another point of reference. Comparisons with results from civil appeals, presented in Table 3, raise important methodological problems, however. Structural differences between the civil and the criminal contexts impede ready comparisons of appeals results. Differences in standing to appeal are among the important structural differences. In the civil context, either party has the ability to appeal. In the criminal context, however, constitutional double jeopardy protections for criminal defendants generally afford defendants only with the opportunity to appeal an adverse trial judgment.[22] As a result, even if one were inclined to compare criminal and civil appeal outcome rates, it is not entirely clear whether the appropriate rate is that which involves only defendants who appeal adverse trial court decisions or, instead, the overall civil appeal

20. *See* JOY A. CHAPPER & ROGER A. HANSON, NAT'L CTR. FOR STATE COURTS, UNDERSTANDING REVERSIBLE ERROR IN CRIMINAL APPEALS 35 tbl.3 (1989).

21. *See* U.S. Sentencing Commission's SOURCEBOOKS from 1995 through 2007, *available at* http://www.ussc.gov/annrpts.htm.

22. *See* U.S. CONST. amend. V.

outcome rate. Owing to an asymmetric distribution of appeal outcomes for plaintiffs and defendants in the civil context,[23] the decision about the proper reference group is important. In addition, differences in applicable standards of proof that separate civil and criminal trials may also influence comparisons of appeal rates.

Despite important difficulties in comparing criminal and civil reversal rates, general impressions arise without too much difficulty. The overall criminal reversal rate (11.7%) is lower than the overall civil reversal rates, state or federal (32.1% and 18.4%, respectively).[24] Moreover, if civil appeals by defendants are more comparable to federal criminal appeals, the discrepancy is even starker. Defendants in civil litigation are far more likely to prevail on appeal than defendants seeking to reverse a sentence or conviction (or both).[25]

1. What to Make of the Comparatively Low Criminal Appeal Reversal Rate?

Many instinctively seek comfort from the comparably low criminal reversal rates. After all, comparatively low criminal reversal rates plausibly imply that criminal trial courts are "getting it right" in an overwhelming percentage of cases. Given the stakes for criminal defendants, this public impulse is understandable.

On the other hand, however, the comparably low reversal rate might be an artifact of a highly skewed subset of convicted criminal defendants who pursue an appeal. That is, given the assuredly skewed stream of convicted criminal defendants who that pursue an appeal, perhaps the observed level of reversal rates is *low*. Simply put, and similar to civil context, the overwhelming bulk of "activity" in our criminal justice system takes place outside of trials. Plea bargaining resolves the "vast majority" of federal criminal cases, and plea bargains are rarely reviewed for error.[26] Moreover, a growing array of criminal procedural doctrines has expanded, with the cumulative effect of precluding appellate relief even when the appellate court finds trial court error.[27] Without a firm understanding of how the criminal

23. *See* Theodore Eisenberg & Michael Heise, *Plaintiphobia in State Courts? An Empirical Study of State Court Trials on Appeal*, 38 J. LEGAL STUD. 121, 124 (2009) (discussing asymmetrical distribution in state civil appeals); Kevin M. Clermont & Theodore Eisenberg, *Plaintiphobia in the Appellate Courts: Civil Rights Really Do Differ from Negotiable Instruments*, 2002 U. ILL. L. REV. 947 (2002) (examining statistics on federal civil appeals).

24. *See* Table 3 *infra*.

25. *See* Eisenberg & Heise, *supra* note 23, at 144–48 (assessing why civil appeals courts tend to favor defendants).

26. Rosanna Cavallaro, *Better Off Dead: Abatement, Innocence, and the Evolving Right of Appeal*, 73 U. COLO. L. REV. 943, 978 (2002).

27. *See* James S. Liebman, *The Overproduction of Death*, 100 COLUM. L. REV. 2030, 2055 n.91 (2000) (noting the impact of forgiving trial court errors through the harmless error doctrine).

cases that proceed to trial might systematically differ from the vast bulk of cases resolved through a plea bargain, criminal reversal rate findings tell us precious little.

Further, instances in which the trial court clearly "got it wrong" and wrongfully convicted factually innocent individuals profoundly challenge public confidence in the assumption that criminal trials courts are "getting it right"—certainly not always. No context is more visceral in this regard than the exoneration of death row inmates on the basis of DNA evidence. Recent successes by the Innocence Project remind us all of the appellate court's most salient mission—error reversal. The public's tolerance for error, however, continues to grow thin, so much so that wrongful convictions of death row inmates—admittedly a stunningly rare event—nonetheless contribute to an erosion of public support for the death penalty.[28]

Table 3: State and Federal Civil Trials, Reversal Rates (%)[29]

	State	*Federal*
All Trials	32.1	18.4
Jury Trials	33.7	20.4
Judge Trials	27.5	16.5
Appealing Party		
Defendant	41.5	32.5
Plaintiff	21.5	12.0
Total Reversals	176	1,355

C. Geographic Variation

National snapshots of our legal system—in particular, our federal appellate criminal justice system—often mask important variation across circuits. Indeed, geography often influences an array of outcomes in the legal system, including appeal outcome,[30] damages,[31] and disposition time.[32]

28. *See* Daniel J. Sharfstein, *European Courts, American Rights: Extradition and Prison Conditions*, 67 BROOK. L. REV. 719, 741 (2002) ("[P]ublic support for the death penalty has recently declined somewhat after revelations about the actual innocence of dozens of people wrongly sent to death row. . . .").

29. Eisenberg & Heise, *supra* note 23, at 130 tbl.1.

30. *See, e.g.*, *id.*, *supra* note 23, at 140.

31. *See* Theodore Eisenberg et al., *The Predictability of Punitive Damages*, 26 J. LEGAL STUD. 623, 630–32 (1997) (discussing the salience of geography to punitive damages).

Results in Table 4 comport with these other results that found geographic variation. Although the overall average nationwide affirmance rate for 2006 criminal appeals was 68.5%, across the nation's twelve federal circuits affirmance rates ranged from a low of 49.3% (D.C. Circuit) to a high of 85.1% (Eleventh Circuit). Reversal rates ranged from 5.7% to 20.5%. Remand and dismissal rates displayed even greater variation; remand rates ranged from 2.3% to 22.1%, and dismissal rates varied from 0.5% to 27.8%.

Of course, to some degree the influence of geography may mask the effect of varied case types. That is, available data do not permit more finely granulated analyses for criminal case types and the selection effects challenges they might impose. This is important insofar as the prosecution of some crimes (particularly complex crimes) might lend themselves more to reversible error than other types of crimes. The influence of crime types may distort the influence of geography if we assume that appeals of various crime types do not distribute randomly across the federal circuits. Such an assumption—that crime types do not distribute randomly across circuits—is borne out in other research.[33] Thus, while the results in Table 4 provide a helpful starting point, once again more probative results require data that are not readily available.

32. *See* Michael Heise, *Justice Delayed?: An Empirical Analysis of Civil Case Disposition Time*, 50 CASE W. RES. L. REV. 813, 836–38 (2000) (discussing the influence of geography on state civil case disposition time).

33. *See* Frank O. Bowman, III & Michael Heise, *Quiet Rebellion II: An Empirical Analysis of Declining Federal Drug Sentences Including Data from the District Level*, 87 IOWA L. REV. 477, 553–54 (2002) (finding criminal case type variation across federal districts).

Table 4: 2006 Criminal Sentencing Appeals Disposition by Circuit (%)[34]

	Affirmed	*Reversed*	*Affirmed & Reversed*	*Remanded*	*Dismissed*
National Average	68.5	11.7	2.8	9.3	7.8
Circuit					
First	73.5	13.2	7.3	4.7	1.3
Second	64.6	12.4	5.8	16.8	0.7
Third	63.0	20.1	1.7	10.7	5.7
Fourth	71.8	13.2	2.0	4.6	8.5
Fifth	74.2	12.5	1.5	7.7	4.1
Sixth	62.6	20.5	3.5	8.7	4.6
Seventh	59.1	12.7	1.8	6.5	19.9
Eighth	83.7	5.7	2.1	5.0	3.6
Ninth	53.6	9.7	4.0	22.1	10.6
Tenth	58.2	6.6	1.8	5.6	27.8
Eleventh	85.1	8.2	3.9	2.3	0.5
D.C.	49.3	11.6	1.4	31.9	5.8
Total Dispositions	5,579	955	224	756	631

D. Booker*'s Influence*

The Supreme Court's *United States v. Booker*[35] decision dealt the world of federal criminal sentencing a profound shock. The United States Sentencing Commission,[36] created by the Sentencing Reform Act of 1984,[37] established a sentencing "grid" (Guidelines) whereby the sentencing range for a defendant was determined as a function of, among other variables, the seriousness of the crime and the defendant's criminal history (if any).[38] The Guidelines went into effect on November 1, 1987, and applied immediately to most federal crimes committed after that date and until the *Booker* decision in 2005. As it relates to American federal criminal law, contemporaneous observers described the Guidelines as the "most dramatic change in our Nation's

34. U.S.S.C., 2006 SOURCEBOOK, *supra* note 8, at 141–43 tbl.56. The disposition percentages and totals listed are based on a total number of 8,145 appeals.

35. 543 U.S. 220 (2005); *see also* United States v. Morris, 429 F.3d 65, 69 (4th Cir. 2005).

36. 28 U.S.C. § 991(a) (2006).

37. The Sentencing Reform Act of 1984 was enacted as Title II of the Comprehensive Crime Control Act of 1984, Pub. L. No. 98-473, 98 Stat. 1837, 1987–2034 (codified as amended in scattered sections of 18 U.S.C and 28 U.S.C.).

38. For a fuller description, see Gregory C. Sisk, Michael Heise & Andrew P. Morriss, *Charting the Influences on the Judicial Mind: An Empirical Study of Judicial Reasoning*, 73 N.Y.U. L. REV. 1377, 1397 n.72 (1998).

history."[39]

What makes *Booker* critical is that it unwound the Guidelines' "most dramatic change" to criminal sentencing. Specifically, *Booker* rendered the U.S. Sentencing Commission's Guidelines advisory rather than mandatory and their application subject to review for reasonableness. In determining an appropriate sentence, a district judge must initially calculate the sentence range recommended by the Guidelines. A court must then assess whether a sentence within the range proposed by the Guidelines is consistent with the factors set forth in 18 U.S.C. § 3553(a).[40] Criminal sentences that fall within the range recommended by the Guidelines benefit from a presumption of reasonableness. Now that the Guidelines are no longer mandatory, however, a sentencing judge may rely on facts *other* than those found by the jury or specifically admitted by the defendant when calculating a sentence.[41] Subsequent decisions confirm the judiciary's recapture of sentencing discretion.[42]

Not surprisingly, the *Booker* decision signaled a "transitional moment,"[43] one that predictably and profoundly influenced criminals and federal criminal sentencing. One expected outcome includes an increased reversal rate for criminal appeals from defendants sentenced under the pre-*Booker* regime. Another expected outcome is that appeals that cite to *Booker* would be more likely to generate a reversal. The data provide support for both expected outcomes.

Table 2 makes clear that the federal appellate courts took *Booker*'s admonition seriously, as the decision correlates with an abrupt and palpable reduction in the criminal appeals affirmance rate. From 1995 through 2004, the affirmance rate hovered at approximately 80%. In 2005, the year *Booker* was decided, the affirmance rate suddenly dropped to just over 54.9%. One year later, while courts continued to work through a backlog of *Booker*-inspired appeals, the affirmance rate increased to 68.5%. By 2007, the final year of available data, the affirmance rate climbed back to 80%, or the pre-*Booker* level. Whether the criminal appeals affirmance rate has now fully digested the shock imposed by *Booker* and reestablished its equilibrium is not yet clear.

The results in Table 2, while helpful, provide only a timeline. Although the palpable drop in affirmances in 2005 obviously correlates with the *Booker*

39. *See* 133 CONG. REC. 26,367 (1987) (remarks of Rep. Conyers).

40. *Booker*, 543 U.S. at 245.

41. *See* United States v. Moncivais, 492 F.3d 652, 665 (6th Cir. 2007).

42. Gall v. United States, 552 U.S. 38 (2007); Kimbrough v. United States, 552 U.S. 85 (2007).

43. *See* Toby J. Heytens, *Managing Transitional Moments in Criminal Cases*, 115 YALE L.J. 922, 939 (2006).

decision, the nature of the relation is not fully understood. A similar, though distinct, question involves the degree to which appeals that cite to *Booker* correlate with an appellate court reversal. To illustrate *Booker*'s influence on 2006 appeals, Table 5 presents results from a re-analysis of Table 1 and breaks out appeals that cited to *Booker* from those that did not. At the descriptive level, results in Table 5 clearly suggest that citation to *Booker* influenced an appeal's outcome. Notably, the overall reversal rate for appeals that cited to *Booker* is twice that of appeals that did not (14.6% versus 6.7%). Also, appeals that cited to *Booker* experienced almost half as many dismissals (5.8% versus 11%) and more than five times as many remands (13.2% versus 2.6%).

Obviously, it was not appellate courts' mere citation to *Booker* that accounted for the different outcomes. More likely is that an appeal that cited to *Booker* involved issues germane to *Booker*, and, therefore, the Supreme Court's 2005 decision made these issues less legally stable. Regardless of what an appeal's citation to *Booker* might signal, Table 5 makes clear that these two substreams of appeals differ in terms of appeals dispositions.

Table 5: Influence of *Booker* Citation for 2006 Criminal Appeals Disposition by Type (%)[44]

	All Appeals	Sentence Only	Sentence & Conviction
Booker *cited in appeal*			
Affirmed	63.1	67.7	51.8
Reversed	14.6	12.5	20.0
Affirmed & Reversed in Part	3.3	2.6	4.9
Remanded	13.2	11.4	17.5
Dismissed	5.8	5.9	5.7
Total Appeals	5,150	3,672	1,478
Booker *not cited in appeal*			
Affirmed	77.7	78.3	76.4
Reversed	6.7	6.5	7.3
Affirmed & Reversed in Part	1.9	1.7	2.5
Remanded	2.6	2.7	2.6
Dismissed	11.0	10.9	11.3
Total Appeals	2,995	2,145	850

Further and closer analysis of a comparison of a key outcome—

44. U.S.S.C. 2006, *supra* note 19.

reversals[45]—that involved citations to *Booker*, and those reversals that did not, uncovers important differences between the two groups. Because *Booker* dealt with the Guidelines, the analysis in Table 6 only includes appeals involving a defendant's sentence. As Table 6 illustrates, appellate reversals systematically distribute unevenly between sentencing-related appeals that cited to *Booker* and those that did not.

Table 6: *Booker* Citations' Influence on 2006 Criminal Appeals Outcomes (Sentence Only)[46]

	Trial Court Decision Affirmed	Trial Court Decision Reversed
Booker *Cited?*		
Yes	3,214	458
No	2,006	139
Total Outcomes	5,220	597

The "deep split" in how federal circuit courts dealt with *Booker* "pipeline" cases contributed to the abrupt dislocation in appeals outcomes pre- and post-*Booker*.[47] As Professor Heytens notes, some federal appellate courts imposed upon defendants pushing *Booker* claims on appeal the full burden of satisfying the usual requirements for a remand for resentencing.[48] Other federal circuits, by contrast, simply remanded every pre-*Booker* case in which the defendant so requested.[49] Finally, other circuits carved a middle ground by requiring trial judges to publicly disclose whether they would have imposed the same sentence had they known the Guidelines were voluntary.[50] Remands would arise only in appeals where trial court judges acknowledged that they might have (or, in fact, had) imposed a different sentence.

IV. INTERPRETATIVE DIFFICULTIES

Although the results presented above convey some helpful general

45. In this analysis the term "reversal" includes cases that were reversed and vacated as well as reversed and remanded.

46. U.S.S.C. 2006, *supra* note 19. Pearson chi-square = 52.80; $p < 0.001$.

47. Heytens, *supra* note 43, at 951–52.

48. *Id*. at 951. *See* Brief for the United States at 11 & n.3, 12 n.4, Rodriguez v. United States, 545 U.S. 1127 (2005) (No. 04-1148) (describing decisions from the First, Fifth, Eighth, and Eleventh Circuits).

49. Brief for the United States, *supra* note 48, at 15–16 (describing decisions from the Third, Fourth, and Sixth Circuits).

50. *Id*. at 13–15 (describing decisions from the Second, Seventh, and D.C. Circuits).

information about the federal criminal appellate terrain, they convey quite little due to data limitations as well as concerns about selection effects. As a consequence, what we do not know about federal criminal appeals dwarfs what we do know.

A. Criminal Appeals Data Limitations

To be sure, the U.S. Sentencing Commission does an admirable job gathering and disseminating the leading source of annual federal criminal appellate data. These data support descriptive work assessing criminal appeals over time. Existing data are insufficient, however, to supply the necessary context through which the descriptive appellate results can be more meaningfully assessed.

It is, of course, far easier to envision the perfect federal criminal appeals data set than it is to actually put it together. In an ideal world, researchers would benefit from a user-friendly data set, organized at the individual criminal "event" level, which would include the entire universe of events from which the pool of crimes emerges. Along with the standard and complete set of background and control variables, such a data set would track the complete disposition of each incident from beginning to end. This idealized data set would permit researchers to observe how the complete universe of criminal events winnows over time as it progresses through the criminal justice system, with the precious few culminating in an appellate decision.

Idealized perfection, of course, is neither a useful nor helpful frame of reference by which to judge the quality of existing data sets. The leading data set for research on federal criminal appeals, produced by the U.S. Sentencing Commission, focuses on the final stage of the appellate process—the outcomes of those appealed cases. Obviously, this is an important stage and the data permit some analyses of the distribution of criminal appellate outcomes. To better account for one important (potential) influence on criminal appeals outcomes, the data need to derive from the universe of criminal trials from which the appeals emerged. Once criminal appeals are linked to their trials (by docket number, for example), researchers will be far better prepared to assess whether and, if so, to what degree and how the pool of criminal appeals systematically differs from the larger pool of criminal trials. Knowing more about the larger pool from which criminal appeals emerge—and whether appellate results systematically differ—would provide critical context through which to assess the distribution of appellate outcomes.

Obviously, criminal trial data are subject to similar filtering effects (e.g., plea bargaining, prosecutorial discretion, and law enforcement selectivity). Although the influences of such filtering on criminal appeals cannot be easily dismissed, the practical difficulties associated with gathering data that bear on

such filtering are profound. While similarly difficult and potentially expensive, civil trial data, by contrast, are far more readily available. Indeed, an analogous data set already exists in the state civil context.[51]

B. Selection Effects

A seminal work by Professors George Priest and Benjamin Klein[52] has contributed to (indeed, helped frame) the formation of a theory about the selection of cases for trial and the rates of success parties enjoy for cases that are resolved by a formal trial. The theory, at its most basic level, includes two distinct and severable parts. First, the sub-pool of cases resolved by formal trial systematically differs from the larger universe of legal disputes from which they emerge.[53] The cases that persist to resolution by a trial involve "close" facts or "unclear" legal rules that are "difficult" to apply. That is to say, the cases that persist to trial for resolution are those for which the outcomes are not easily predicted with accuracy. A second distinct component of the Priest–Klein hypothesis flows from the first—that the resolution of cases that persist to trial will result in 50% victories for the plaintiff and 50% victories for the defendant.[54]

To note that the Priest–Klein hypotheses stimulated research, especially empirical research, is to note only the obvious. However, results from much of the subsequent work testing the "50%" hypothesis are, in the main, inconclusive.[55] Scholars have noted the tremendous variation that occasionally appears in plaintiff success rates across districts and case types.[56]

To the extent that the Priest–Klein 50% hypothesis has not weathered subsequent testing well,[57] few dispute the important contribution from the first part of the Priest–Klein hypothesis—in particular, that selection effects account for important differences in the sub-pool of cases that persist to a resolution by trial (let alone persisting through an appeal) and the larger universe of legal disputes from which they derive.

Priest and Klein formulated their theories within the context of civil litigation. Although the criminal and civil justice systems in the United States

---

51. *See, e.g.*, Eisenberg & Heise, *supra* note 23, at 127–29.

52. *See* George L. Priest & Benjamin Klein, *The Selection of Disputes for Litigation*, 13 J. LEGAL STUD. 1 (1984).

53. *Id*. at 13–17.

54. *Id*. at 17–20.

55. *See, e.g.*, Theodore Eisenberg, *Testing the Selection Effect: A New Theoretical Framework with Empirical Tests*, 19 J. LEGAL STUD. 337, 347 (1990).

56. *Id*. at 355–56.

57. *See, e.g.*, Donald Wittman, *Dispute Resolution, Bargaining, and the Selection of Cases for Trial: A Study of the Generation of Biased and Unbiased Data*, 17 J. LEGAL STUD. 313, 315 (1988) (discussing sample selectivity bias in the Priest–Klein model); Elder, *supra* note 2, at 192 (characterizing the Priest–Klein 50% hypothesis as "incorrect").

share many core elements, the two systems fundamentally differ in two critical respects. First, for criminal prosecutions the government must prove its case "beyond a reasonable doubt"[58] and, second, the government is largely precluded from appealing acquittals.[59] For the narrow purpose of this Article, the most important aspect is that "[Priest and Klein's] basic insight . . . carries over from the civil cases they study to criminal cases."[60] While the selection effects hypothesis straddles civil and criminal cases, differences in the two systems implicate selection effects' influences. In particular, as Professor Stith noted, structural differences between the civil and criminal justice systems, particularly the preclusion of the government from appealing criminal acquittals, generate important asymmetries unique to the criminal context which, in turn, implicate criminal reversal rates.[61]

1. Selection Effects in the Criminal Context

Throughout the criminal justice process, a number of factors likely act as filters that lead to a non-random sample of cases that generate an appellate court decision. Among the factors that are the most difficult to measure are the individual acts of discretion exerted by various law enforcement officials and prosecutors throughout the four major stages of the criminal case—the decision to prosecute, settlement negotiations (plea bargains), the determination of guilt, and sentencing. Indeed, in the criminal justice system, many factors and institutions, by constitutional design, influence the stream of criminal appeals. The structural design features that distinguish the civil and criminal systems and implicate selection effects include the standard of proof required for a conviction and the Double Jeopardy Clause. The influence of various selection effects may distort not only the pool of cases that pursue a criminal appeal but also an appeal's outcome. If so, selection effects complicate efforts to interpret criminal appellate reversal rates.

Setting aside law enforcement officials' discretion that influences the pool of those detained or arrested,[62] further filtering begins anew when prosecutors assess whether to formally seek an indictment and, if so, for what charges. Moreover, even in cases where prosecutors successfully secure indictments,

58. The Due Process Clause requires this burden of proof. *See In re* Winship, 397 U.S. 358, 364 (1970).

59. The Constitution's prohibition on double jeopardy mandates this rule. *See* U.S. CONST. amend. V; Benton v. Maryland, 395 U.S. 784, 795–97 (1969); Kepner v. United States, 195 U.S. 100, 126 (1904).

60. *See* Elder, *supra* note 2, at 192.

61. *See* Kate Stith, *The Risk of Legal Error in Criminal Cases: Some Consequences of the Asymmetry in the Right to Appeal*, 57 U. CHI. L. REV. 1, 3 (1990).

62. *See, e.g.*, Sanford H. Kadish, *Legal Norm and Discretion in the Police and Sentencing Processes*, 75 HARV. L. REV. 904, 906–15 (1962) (describing how the exercise of police discretion in the arrest function fuels accusations that police "are harder on" black suspects than white suspects).

the overwhelming majority of cases are resolved before trial through plea bargaining. Most observers, such as Shavell, argue that such filtering likely removes cases where the likelihood of a reversal is comparatively higher.[63]

Additional filters influence criminal cases that are brought to trial. To secure a criminal conviction, the government must prove its case beyond all reasonable doubt.[64] This threshold is considerably more severe than the "preponderance" threshold in the civil setting.[65] Consequently, by definition criminal appeals by defendants who lost at trial involve cases where a trial court jury previously concluded that the facts proved the defendant's guilt beyond all reasonable doubt. Any cases where the facts are not judged to achieve this searching threshold do not even make it into the pool of potential criminal appeals.

Constitutional design and federal statutes designate who can launch an appeal in the federal criminal context and, in so doing, further influence the stream of criminal appeals. The Constitution's Double Jeopardy Clause has been interpreted to largely preclude governmental appeals of not guilty verdicts.[66] What this means in practice is that, while a defendant can appeal a conviction, the government cannot appeal an acquittal, despite what prosecutors might think about trial court legal or factual errors. As Professor Stith has observed, this pro-defendant procedural "tilt" injects asymmetry into the flow of criminal cases that proceed into the pool of potential criminal appeals.[67]

In addition, to the extent that trial judges are mindful of appellate review and seek to minimize reversals of their decisions, because criminal trial judges can be reversed only for their decisions against the defendant, trial judges might be incented to give defendants the benefit of the doubt in their rulings.[68] Regardless of trial judges' incentives, the filters in place governing the pool of criminal appeals inform *ex ante* expectations about criminal appeals reversal rates.

All of these factors—beginning with discretion exercised by law

---

63. Shavell, *supra* note 1, at 414.

64. It is commonly understood that the Due Process Clause mandates this standard. *In re* Winship, 397 U.S. 358, 364 (1970).

65. *See* Kevin M. Clermont, *Procedure's Magical Number Three: Psychological Bases for Standards of Decision*, 72 CORNELL L. REV. 1115, 1119 (1987) (noting the "preponderance" rule is the "usual standard in civil litigation").

66. *See* U.S. CONST. amend. V; Kepner v. United States, 195 U.S. 100, 126 (1904); Benton v. Maryland, 395 U.S. 784, 795–97 (1969).

67. *See* Stith, *supra* note 61, at 19. Although Professor Stith goes on to consider whether selection effects exert a pro-defendant bias in the evolution of legal standards over time, *id*. at 50, my more modest goal is to consider only the distribution of appellate court outcomes.

68. *See* R. Erik Lillquist, *A Comment on the Admissibility of Forensic Evidence*, 33 SETON HALL L. REV. 1189, 1192 (2003).

enforcement and prosecutors and continuing through the settlement, trial, and appellate stages—serve as filters that influence which cases enter the criminal justice system, how cases proceed through the system, and what appellate outcomes result. To the extent that such factors exert selection effects, these effects influence the distribution of appellate outcomes. Consequently, a textured and nuanced understanding of these admittedly complex selection effects is necessary to fully understand the distribution of criminal appellate outcomes and what it means. Although helpful data exist that illustrate the distribution of criminal appeals and how the distribution changes over time, existing data are insufficient to confidently assess the influences of plausible selection effects. The paucity of data germane to studying selection effects limits the analytic weight that data on criminal appellate outcomes can carry.

V. CONCLUSION

Although pleas for "more [and better] data" are quite common,[69] especially among legal empiricists,[70] such pleas are especially apt in the criminal appeals context. What remains unknown about federal criminal appeals far outweighs what is known. Moreover, what is known lacks the texture and nuance necessary to put results into proper context. Still, the broad contours of existing data on the distribution of federal criminal appellate outcomes, while far short of thorough and definitive, provide some helpful guidelines and trends. What these guidelines and trends mean, however, and what one can properly infer from them, is far less clear. Contributing to the questions' complications and illusiveness are severe limitations of existing data as well as the influence of selection effects. Thus, while existing data sketch out the general contours of what our federal appellate courts are doing in the criminal setting, how to interpret these data remains far from clear.

This lack of clarity flows more from limited data than limited theory. Existing data limitations all but preclude assessments of selection effects that the structure of the federal criminal justice system almost guarantees exist. Throughout the stream of federal criminal cases—from the criminal incident itself, to the discretion exercised by law enforcement and prosecutors, and the further filtering influences of plea bargaining and the criminal trial—important factors shape the astonishingly small pool of criminal cases that initiate the appellate process. Because both theory and reality suggest that the sub-universe of criminal appeals systematically differs from the universe of

69. *See, e.g.*, Lucy V. Katz, *Compulsory Alternative Dispute Resolution and Voluntarism: Two-Headed Monster or Two Sides of the Coin?*, 1993 J. DISP. RESOL. 1, 54 ("Like all such studies this one has ended with a plea for more study: more data, larger samples, better control groups.").

70. *See, e.g.*, Michael Heise, *The Importance of Being Empirical*, 26 PEPP. L. REV. 807, 824 (1999) (noting the need for the greater development of germane data sets for legal scholars).

criminal cases from which appeals derive, what to make of the distribution of appellate outcomes is not immediately apparent. To be sure, while more and better data may not provide conclusive answers to important questions regarding the world of federal criminal appeals, more and better data will certainly contribute to and develop our understanding of federal criminal appeals.